



# CTDOT OUTREACH SESSION ON THE BIPARTISAN INFRASTRUCTURE LAW: NATIONAL ELECTRIC VEHICLE INFRASTRUCTURE (NEVI) FORMULA PROGRAM

April/May 2022

# FRIENDLY REMINDERS

Webinar is being recorded and the chat is public record

Please stay on mute to avoid disruptions

If we stop the presentation for any reason, please rejoin using your registration link

Questions can be entered in the Zoom Q&A field throughout the presentation

We will answer questions from the Q&A at the end

If we don't get to your question, we will follow up after the presentation

# Agenda to Cover

Federal Goals for Electric Vehicles

Background on IIJA NEVI Funding Requirements

Investing in DC Fast Charging

Review of Plan (Vision, Goals)

Phase 1 Focus: Alt. Fuel Corridors

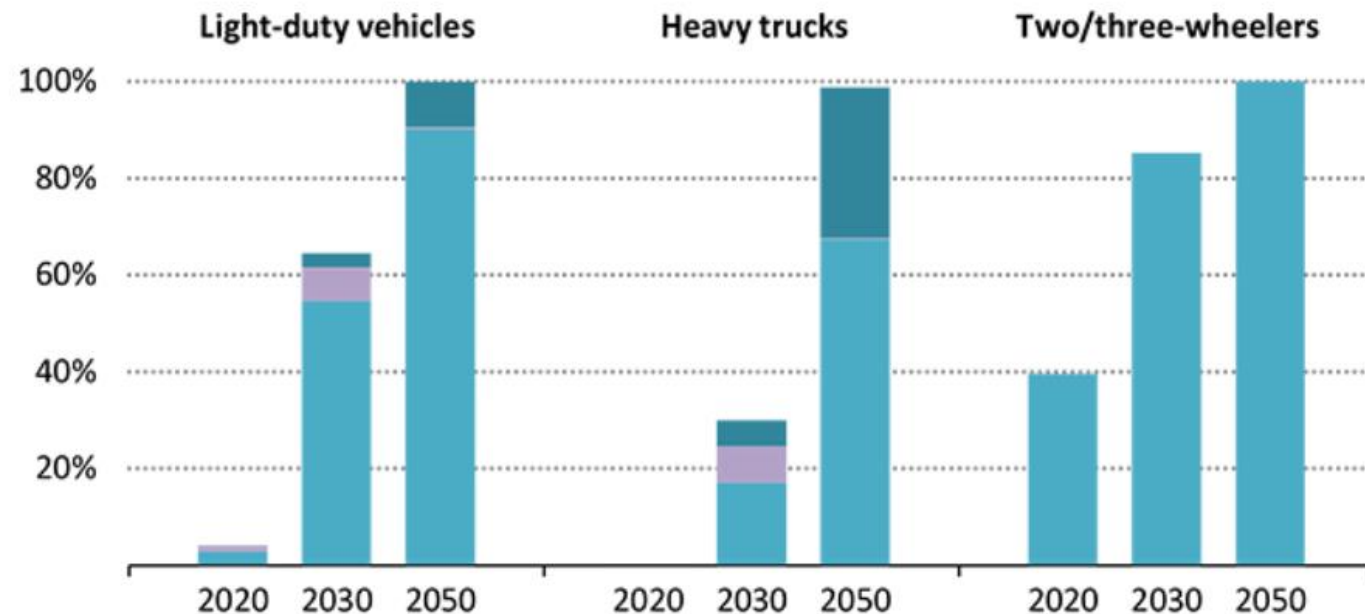
Prioritization of Zones

Next Steps & How to Stay Informed





### Global Share of Battery Electric, Plug-in Hybrid and Fuel Cell Electric Vehicles in Total Sales by Vehicle Type in Net Zero Emissions Scenario



**EXECUTIVE ORDER 14037 CALLS  
FOR 50% EVS BY 2030**



# NEVI AND CONNECTICUT

*Formula  
Funding*



## CONNECTICUT

\$7.7M in the first year of the program  
~\$52M across all five years of the program



# NEVI FORMULA FUNDING PROGRAM GUIDANCE

## RELEASED FEBRUARY 10, 2022

### Law Requires:

- Prioritizing **publicly-accessible** direct current (DC) **fast charging** along the Interstate Highway System (designated Alt. Fuel Corridors)
- At least four 150 kW DC Fast Chargers with Combined Charging System (CCS) ports capable of simultaneously DC charging four EVs
- Minimum station power capability at or above 600 kW and supports at least 150 kW per port simultaneously across four ports for charging
- Located one mile off the interstate ramp
- EV Infrastructure Deployment Plans are required
- Priority for equity and environmental justice
- Guidance covered minimum standards for EV charging stations (FHWA to publish more info May 13, 2022)

**Memorandum**

U.S. Department of Transportation  
Federal Highway Administration

Subject: **INFORMATION: The National Electric Vehicle Infrastructure (NEVI) Formula Program Guidance** Date: February 10, 2022

From: Andrew C. Rogers  
Chief Counsel  
*Andrew C. Rogers*

In Reply Refer To:  
HCC and HEP

Gloria M. Shepherd  
Associate Administrator for Planning,  
Environment, and Realty  
*Gloria M. Shepherd*

To: Division Administrators

On November 15, 2021, the President signed into law the Bipartisan Infrastructure Law (BIL), enacted as the Infrastructure Investment and Jobs Act (IIJA), (Pub. L. 117-58). The purpose of this memorandum is to highlight the new National Electric Vehicle Infrastructure (NEVI) Formula Program authorized under Paragraph (2) under the Highway Infrastructure Program heading in title VIII of division J of the BIL.

This memorandum provides background, funding eligibilities, and program guidance for implementation of these historic investments in electric vehicle (EV) charging infrastructure that will put the United States on a path to a nationwide network of 500,000 EV chargers by 2030 and ensure a convenient, reliable, affordable, and equitable charging experience for all users.

Under this program, each State is required to submit an EV Infrastructure Deployment Plan (Plan) that describes how the State intends to use its apportioned [NEVI Formula Program](#) funds in accordance with this guidance. No NEVI Formula Program funds shall be obligated by a State until FHWA approves that State's Plan, although staffing and other activities related to the development of a Plan will be eligible for reimbursement (in accordance with 2 CFR Part 200).

Plans must be submitted to the Joint Office of Energy and Transportation (Joint Office) not later than August 1, 2022 and the Federal Highway Administration (FHWA) will approve eligible Plans by September 30, 2022. States that submit plans before August 1, 2022 will be approved by FHWA on a rolling basis.

The Joint Office will play a key role in the implementation of the NEVI Formula Program. Much like the formalized partnership between the U.S. Departments of Transportation and Energy, FHWA Division

[The National Electric Vehicle Infrastructure \(NEVI\) Formula Program Guidance \(dot.gov\)](https://www.dot.gov/programs/infrastructure/nevi-formula-program-guidance)











# NEVI AND STATE TRANSPORTATION PLANNING

- NEVI Program to be administered as a Federal-aid Highway Program under 23 USC Chapter 1
- All projects receiving NEVI funding must be programmed in the “relevant TIP/STIP plans,” and have completed all state and federal environmental reviews
- Funding is not transferable to other highway programs



# INVESTING IN DC FAST CHARGING

Level 1	Level 2	Level 3
120V	240V	480V
Standard 120V outlet 	Standard Dryer outlet 	DC Fast Charger 
 Adds 5 miles per hour of charge*	 Adds 20-60 miles per hour of charge*	 Adds 60-250 miles per 20 minutes of charge*
*Estimated Actual Charge Times May Vary		

## 150 kW Chargers

Drivers on average get

125 miles of charge in ~15 minutes\*

## 350 kW Chargers

Drivers on average get

200 miles of charge in ~10 minutes\*

DCFC charging sessions can be billed either by per kWh or per minute.

EVs Can Charge Faster and Faster

Year	Average Range (kW)	Average Max Charging	Average Range (No Tesla)	Average Max Charging (No Tesla)
2021	247	175	218	149
2022	261	218	261	218

Source: This data was downloaded directly from [fueleconomy.gov](https://www.fueleconomy.gov) on April 12, 2022

\*Rate of charge depends on vehicle capability





# CTDOT OUTLINING OUR STATE EV INFRASTRUCTURE DEPLOYMENT PLANS

## The Plan should:

- Describe state agency coordination
- Discuss how the public was involved in plan development
- Articulate the plan's vision and goals on a 5-year horizon using performance management principles
- Present the results of existing and future conditions analysis
- Present a deployment strategy for meeting the goals, including identifying funding and general locational priorities, as well as post-build out activities
- Describe how the plan will account for sociodemographic, geographic, and economic equity considerations



# ESTABLISHING CONNECTICUT'S NEVI PLAN VISION & GOALS

DRAFT

The Connecticut Charging Ahead Plan will create a robust roadmap for how the state intends to catalyze the expansion of a safe, reliable, accessible electric vehicle fast charging network by spurring investments in and ensuring equitable distribution of fast charging infrastructure throughout the state.

Accelerate EV adoption/deployment by:

- Making Fast Charging Convenient
- Providing a Seamless New England EV Traveler Experience
- Working with State and Local Partners to Address Gaps Along Connecticut's Highway Network



# ESTABLISHING CONNECTICUT'S NEVI PLAN GOALS

DRAFT

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Provide Equitable Access to  
the Benefits of Electrification  
Across the State

Boosting Range  
Confidence

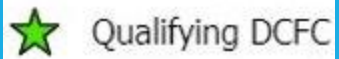
Engage People: Build in  
Transparency to the Strategy  
and Implementation of Plan  
Development

Comply With Federal  
Program Requirements

Maximize Investments: Compliment  
Any NEVI Investments with Other  
Available Funding Streams

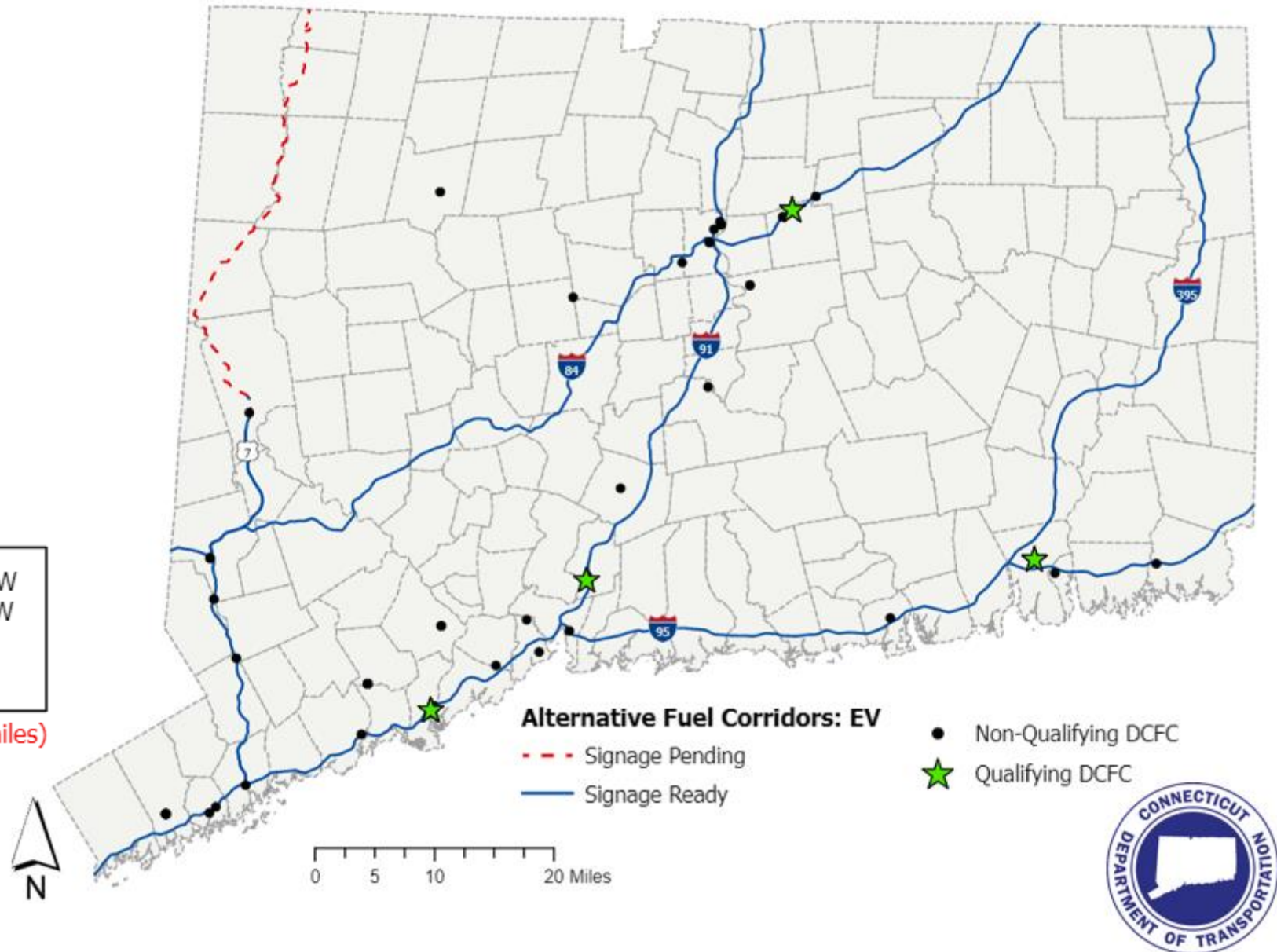


# PHASE 1 FUNDING ALTERNATIVE FUEL CORRIDORS

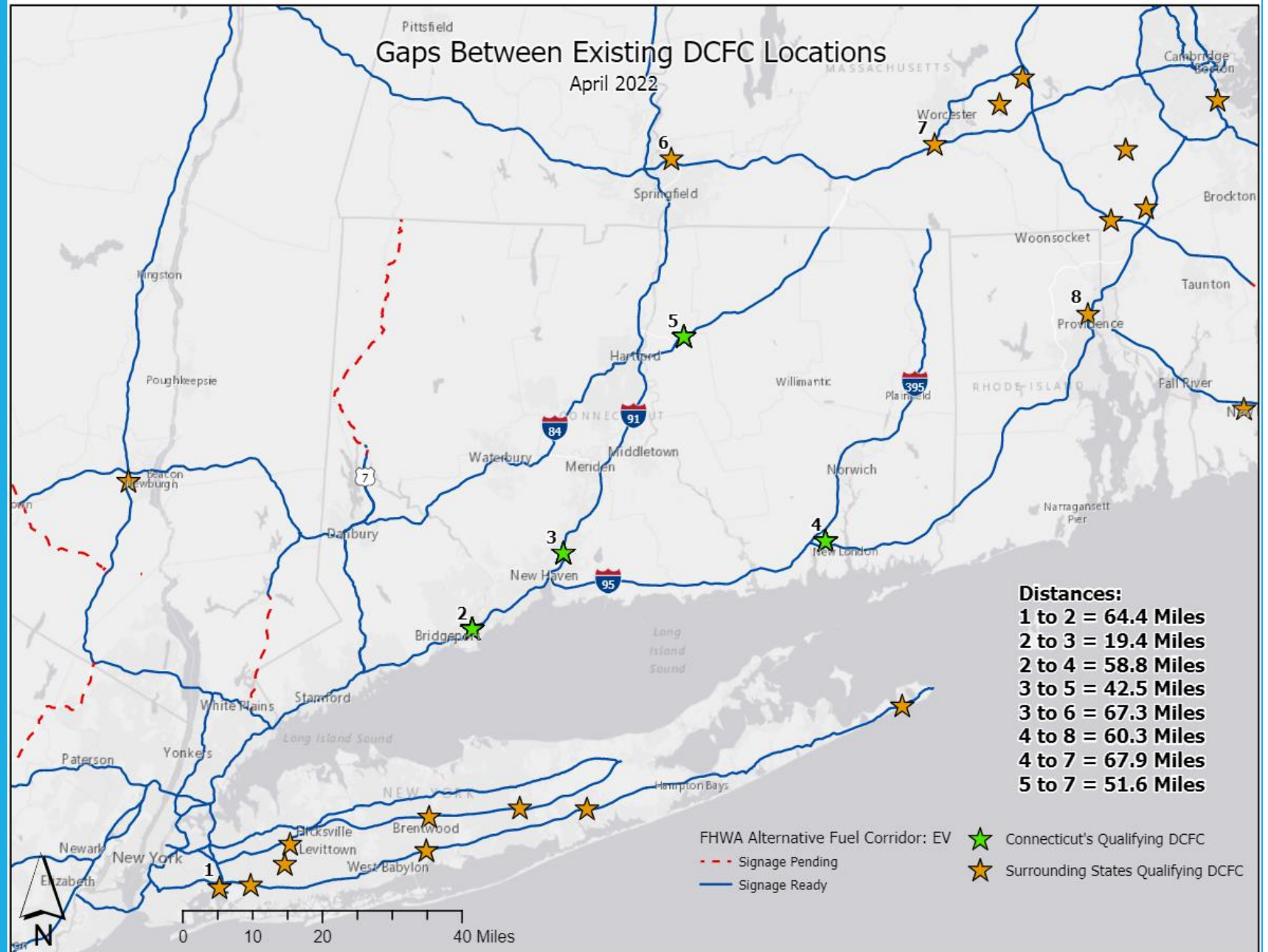


1. Manchester - (6) Stations, (4) 150 kW, (2) 350 kW
2. North Haven - (4) Stations, (2) 150kW, (2) 350kW
3. Stratford - (8) Stations, (6) 150kW, (2) 350kW
- \*4. Waterford - (6) Stations, (4) 150kW, (2) 350kW

\*Seeking Discretionary Exception (Distance = 1.12 miles)

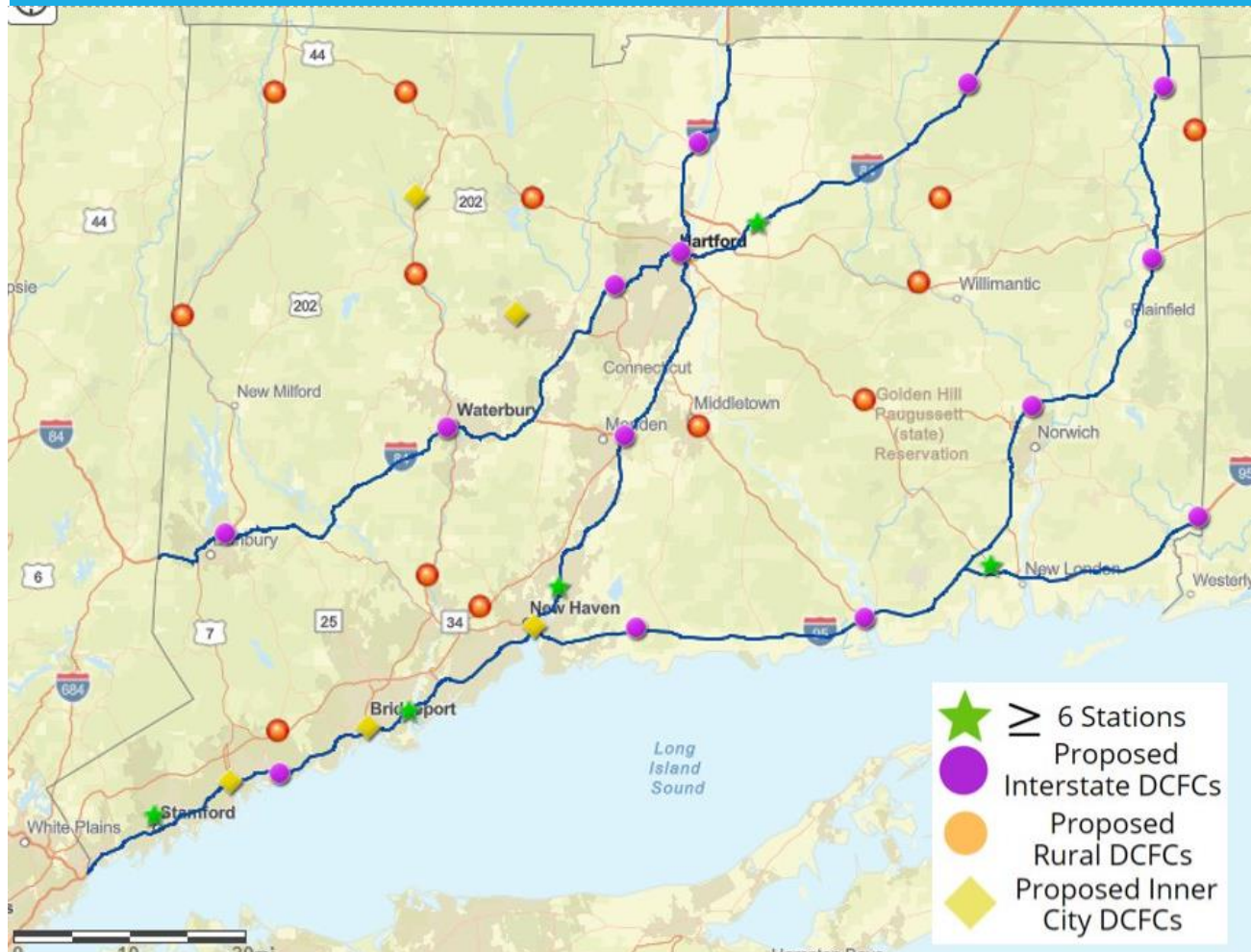


# FOCUSING ON MEETING 50 MILE NEVI REQUIREMENT





# CTDOT COMPLETED A GAP ANALYSIS OF EV FAST CHARGING ALONG CT'S TRANSPORTATION CORRIDORS



## January Analysis Results

- 14 locations that are located directly off the interstate
- Focused on 6 chargers a location
- Estimated Cost : ~\$7 Million

**\*Initial Analysis Done Before NEVI Guidance Released\***

Full Presentation on CTDOT's Gap Analysis can be found at:

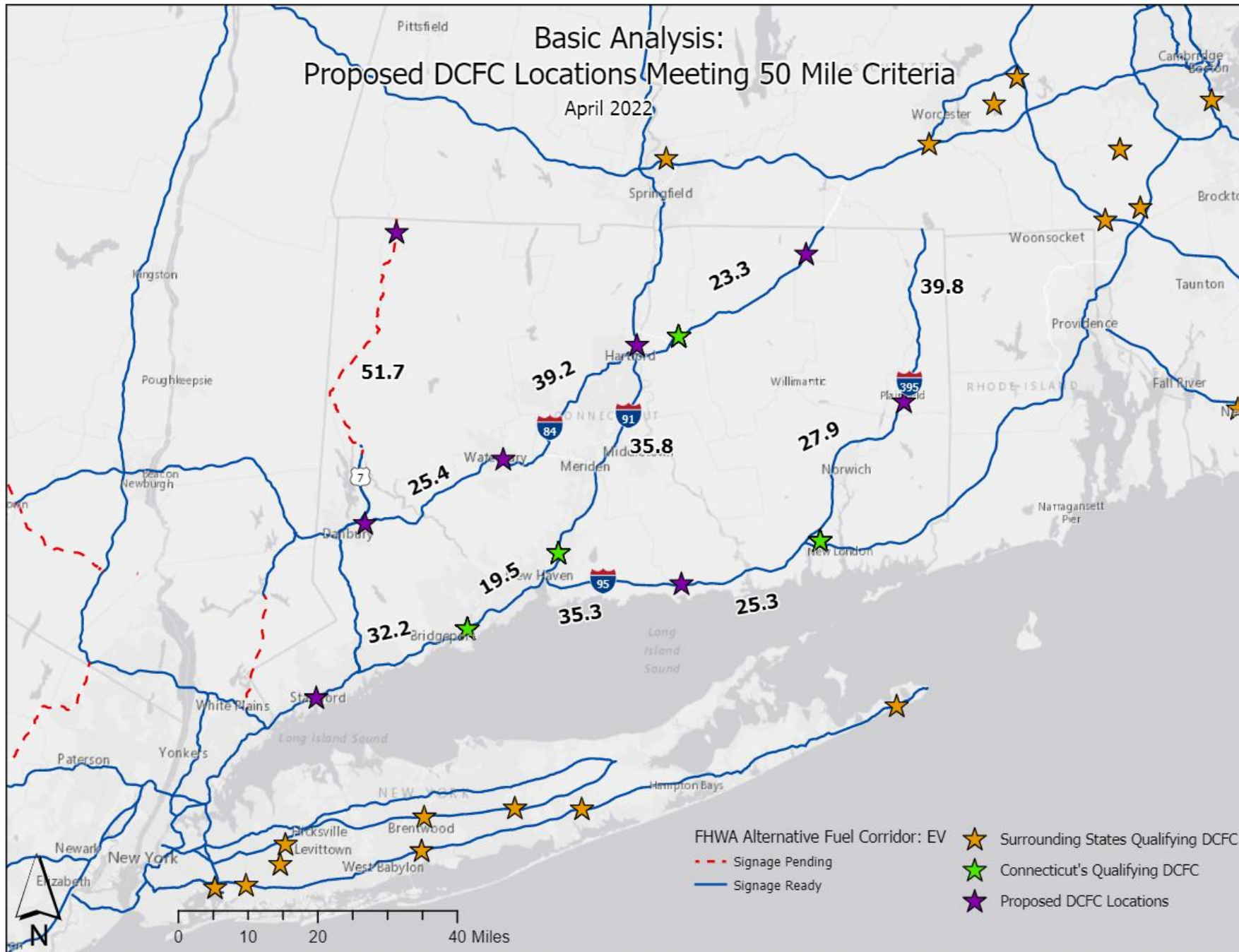
<https://youtu.be/FFcii1uDan0>





# Basic Analysis: Proposed DCFC Locations Meeting 50 Mile Criteria

April 2022



# HIGH-LEVEL ANALYSIS

Focus  
**50 Miles  
Between Stations**



**~8 Zones Identified  
Based on Mileage**



## TRANSLATING GAPS TO PRIORITY LOCATIONS

### Why Prioritize?

- ❖ Potential application selection process-scoring
- ❖ Targeted outreach
- ❖ Ensure benefits provided to all populations (Justice 40)
- ❖ Support charging in rural areas



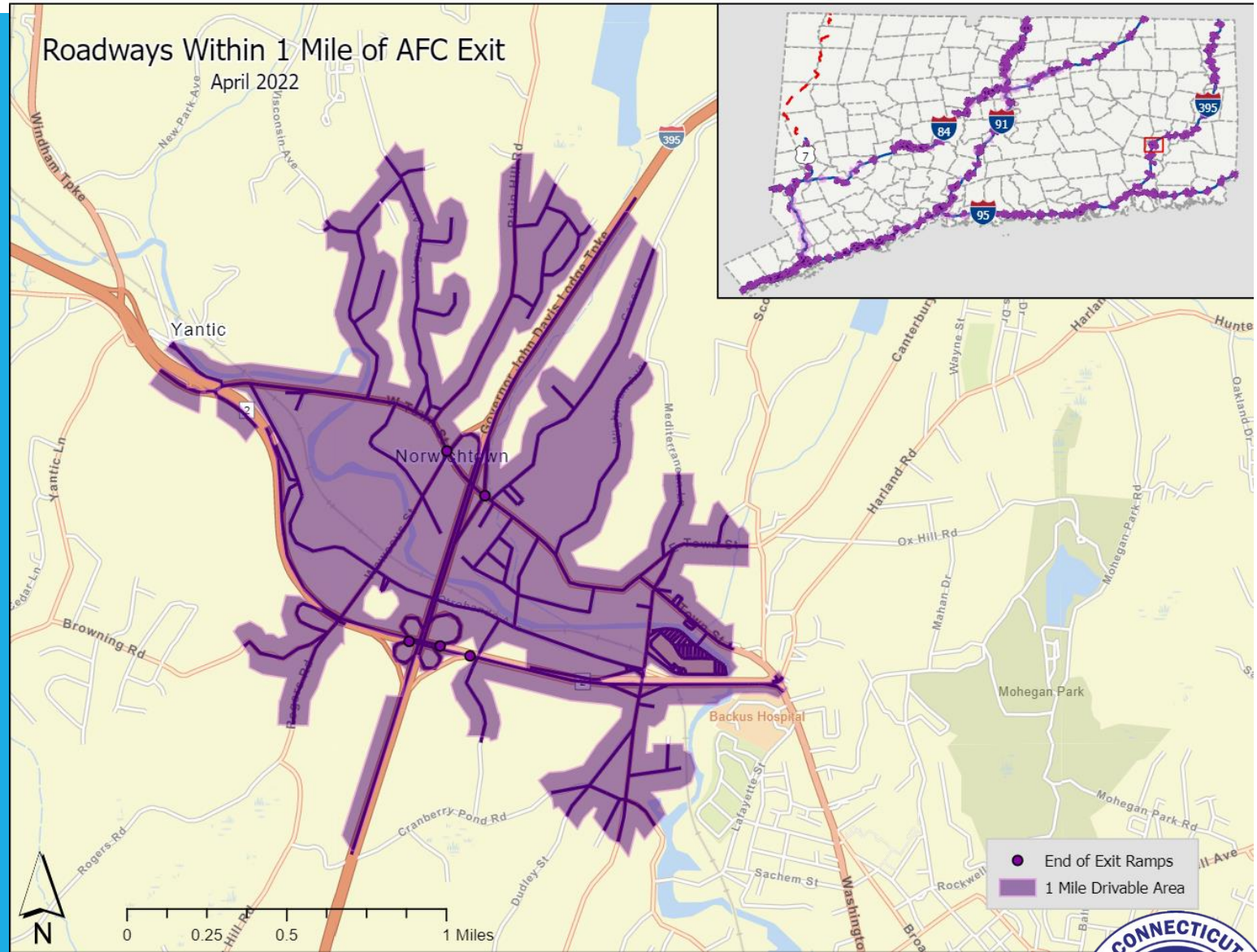


# DATA NEEDED TO HELP PRIORITIZE LOCATIONS:



ArcGIS

- Existing Station Locations
- Utility Hosting Capacity Maps
- Destination/Attractions
- EV Registrations
- Socioeconomic Data
- Exit Locations and Amenities
- Input from Stakeholders



A Drivable Mile off an Interstate



# COMPETITIVE GRANT PROGRAM



- Who will be eligible to apply?
  - Open to All
- How much per applicant?
  - Up to 80% of station cost
  - CTDOT considering a \$\$ maximum per port/station
- Criteria will include:
  - Cost Effectiveness
  - Reliable Operations
  - Customer Experience
  - Drive Innovation
- When?
  - Fall of 2022



# POTENTIAL TO INCENTIVIZE A COHESIVE FAST CHARGING NETWORK FOR CONNECTICUT

It is essential to ensure that publicly-funded, publicly-accessible charging stations are brand agnostic, support charging for all makes and models, and are reliable and convenient for all to access.





# EMPHASIS ON EQUITY AND ENVIRONMENTAL JUSTICE

## Plan Development



## Plan Implementation





# WHAT'S NEXT & HOW TO STAY INFORMED

- Send plan feedback to [CT-DOTEVPlanning@ct.gov](mailto:CT-DOTEVPlanning@ct.gov) by June 3, 2022
- Visit CTDOT's NEVI Webpage & sign up for email updates
- Multi-Agency Steering Committee
- Prioritizing Phase 1 Charging Locations
- Continuing Plan Development
- Determining Best Contracting Method(s)
- Submitting Connecticut's Plan by August 1

**Take our brief survey:**

[forms.office.com/g/1nfaXB111B](https://forms.office.com/g/1nfaXB111B)

